Form PTO-14	149	U.S. DEPARTME	NT OF COMMERC	ìF.	ATTY. DOCKET NO.	·	SERIAL NO	heet 1 c	и о	
(MODIFIED)	ODIFIED) PATENT AND TRADEMARK OFFICE		078883/0120		.09/533,798/O/					
STPE				APPLICANT						
INF	MAT	ION DISCLOSURE	CITATION		Miles	William CA	ARROLL et	al.		
1AY 1 3 2004.	1AY 1 3 2004 &			FILING DATE		GROUP AF	TINU TS			
	<b>U</b> Se s	everal sheets if nece	ssary)		3/24/20	00		1643-/	644	
BADEMARY	,		U.S. PA	ΓEN	IT DOCUMENTS				<u>~ 1 1</u>	
EXAMINER	REF	DOCUMENT	DATE		. NAME		SUB-	FILING	FILING DATE	
INITIAL	REF	REF NUMBER DATE		NAME	CLASS	CLASS				
	A1	5,118, <del>072</del>	06/92	Sch	inazi et al.	-514	47			
			FOREIGN F	PAT	ENT DOCUMENTS			<b></b>	<u> </u>	
	REF	DOCUMENT	DATE		COUNTRY	CLASS	SUB-	TRANSLATION		
		NUMBER	04/00				CLASS	YES	NO	
	A2	99/15684		WIP	<del></del>					
	A3	99/15683		WIP	0					
	<u>—A4</u>	89/0 <u>7947</u>	09/89	WIP	0		ļ			
	A5	92/03568	03/92	WIP	0					
		OTHER DOCU	MENTS (Includin	g A	uthor, Title, Date, Per	tinent Pages,	Etc.)			
Guschlbauer et al., "Poly-2'-deoxy-2'-fluoro-cytidylic acid: enzymatic synthesis, spectroscopic										
		Characterization and interaction with poly-inosinic acid 1977 Nucleic Acids Res. 4:1933								
	— <del>A7</del> —	Schibahara et al.,	Site-directed clear	vage	e of RNA" 1987 Nucleic	Acids Res. 15:	4403			
	A8	Gershon et al, "Th	e nucle <del>otide sequ</del> e	псе	around the capripoxvir	us thymidine ki	nase gene re	veals a ge	ne	
		Shared specifically	with leporipoxvirus	J.	Gen. Virol. 70:525, 198	39				
	A9				accinia virus thymidine	kinase gene ar	nd the nature	of sponta	neous	
		Frameshift mutation	ns* J. Virol. 46:530	,19	83					
	A10	Esposito et al., "Ni	ucleotide sequence	of	the thymidine kinase go	ne region of ma	onkeypox and	Variola v	iruses"	
		Virology 135:561, 1	984							
	_A11	-Kilpatrick-et-al., *C	loning and physica	ıl m	apping of yada monkey	tumor virus DN	A" Virology 1	43:399, 1	985	
	A12		<del></del>		region in fowlpox virus			and the		
		translocation of the	fowlpox virus thym	nidin	e kinase gene"J. Gen.	Virol 69:1275, 1	988			
	_A13	Schnitzlein et al., *	A rapid method for	lde	ntifying the thymidine k	inase genes of	avipoxviruse	s <del>" J. Virol</del> o	gical	
		Method 20:341, 198	38				· 			
	_A14		nt.targeted-insertio	n-of	an unselected marker	into the vaccini	a virus genon	ne Viroloç	y 97-	
	l	105, 1986								
XAMINER	$\gamma_{M}$	ariane P	h/Qm;		DATE CONSIDER					
+ EXAM	IINER:	Initial if citation	considered, who	eth	er or not citation is		nce with M	PEP 609	; Draw	
line t	hrough	citation if not in ion to applicant.	conformance a	nd	not considered. In	clude any co	py of this	form wit	h nex	

Form PTO	<b>1</b> 5	MALE DEDARKIENT OF COLUMN		Sheet 2 of 6		
MODIFIED	11	CN.S. DEPARTMENT OF COMMERCE	ATTY, DOCKET NO.	SERIAL NO.		
MAY 1 3 2004 B		BATENT AND TRADEMARK OFFICE	078883/0120 APPLICANT	10/533,798 10/11/11/19		
Ani	ORMAT	TION BISCLOSURE CITATION Several sheets if necessary)	Miles William CF	ARROLL et al.		
35	PANE	ARR	FILING DATE	GROUP ART UNIT		
	(Use s	several sheets if necessary)	3/24/2000	1643 1644		
		OTHER DOCUMENTS (Including A				
	A15	Graham et al., "A new technique for the a	assay of infectivity of human adenoviru	is 5 DNA" Virol. 52, 456-467,		
	+	<del></del>				
	A16	Straibinger et al., "Liposomes as carriers	s for intracellular delivery of nucleic aci	ds" Methods in Enzymology,		
	-	101: 512-527 1983				
	A17	Studier et al., "Use of T7 RNA polymeras	se to direct expression of cloned genes	" Methods in Enzymol.		
		185: 60-89, 1990				
	A18	Matthlas et al., "Eukaryotic expression ve	ectors for the analysis of mutant protein	ns 1989 NAR 17, 6418		
	A19	Wootton & Federhen, "Statistics of local	complexity in amino acid sequences a	nd sequence database* 1993.		
		Computers and Chemistry 17:149-163				
	1	Myers et al., "Isolation of a cDNA encodir	ng 5T4 ancofetal trophoblast glycoprote	ein" 1994 J. Biol. Chem		
	A20	169:9319-9324				
	A21	Starzynska et al., "Prognostic significance	e of 5T4 oncofetal antigen expression	in colorectal Br. I. Cancer		
	1	1994 May; 69(5):899-902		Cancer		
	1.00	Starzynska et al., "The expression of 5T4 antigen in colorectal and gastic carcinoma" Br. J. Cancer 1992				
	A22	Nov; 66(5):867-869				
	A23	Hobbs et al., "polynucleotides containing	2'-amino-2'-deoxyribose and 2'-azido-	2'deoxyribose*1973		
		Biochemistry 12:5138				
-	A24	Starzynska et al., "5T4 oncofetal antigen	in gastric carcinoma and its clinical sig	nificance" Eur J.		
	724	Gastroenterol Hepatol 1998 Jun;10(6)479	484			
	A25	Carsberg et al, Metastasis-associated 5	T4 antigen disrupts cell-cell contacts a	nd Induces cellular motility in		
	~~	epithelial cells" 1996, Int J Cancer Sep 27	; 68(1):84-92			
	A26	Yewdell et al., "TAP-independent delivery	of antigenic peptides to the endoplas	mic reticulum: therapeutic		
	720	potential and insights Into TAP-dependent	antigen processing" 1998 J Immunoth	erapy 21:127-31		
MA	A27	Calvert et al., "Fowlpox virus recombinant	ts expressing the envelope glycoprotein	n of an avian .		
	] ~~.	reticuloendotheliosis retrovirus induce neutralizing antibodies and reduce viremia in chickens" J. of Virol				
	1.	67:3069-3076, 1993				
(N SICT	000	Carroll et al., "Construction and character	ization of a triple-recombinant vaccinia	virus encoding B7-1,		
1 - W	A28	interleukin 12, and a model tumor antigen" 1998 J. Natl. Cancer Inst. 90(24):1881-1887				
MO	A29	"Two bright new faces in gene therapy" Na	ture Biotechnology 1996 14; 556			
EXAMINER	$\frac{1}{2}$	•	DATE CONSIDERED			
	1/V	anama AM	71	10/07		
EXAL citati	MINER:	nitial if citation considered, whether or n t in conformance and not considered.	ot citation is in conformance with N	PEP 609; Draw line through		
appli	cant	Jamaimando and not considered.	menda any copy of this form M	um next communication to		

Form PTO-1	PILE	Wale against a second		Sheet 3 of 6			
(MODIFIED)		DEPARTMENT OF COMMERCE	ATTY, DOCKET NO.	SERIAL NO.			
(MODIFFED) PATENT AND TRADEMARK OFFICE		2004 H	078883/0120	09/533,798 /0/			
SECLOSURE CITATION			APPLICANT  Miles William CARROLL et al.				
<b>*</b>	MADEMARK		FILING DATE	GROUP ART UNIT			
		everal sheets if necessary)	3/24/2000	1843 /64Y			
		OTHER DOCUMENTS (Including A	uthor, Title, Date, Pertinent Pages,	Etc.)			
NO	A30	Pleken et al., "Kinetic characterization of ribonuclease-resistant 2'-modified hammerhead ribozymes" 1991					
N 00		Science 253:314-317					
	A31	Parker et al., "Schame for ranking potent	lal HLA-A2 binding peptides based on	independent binding of			
	~	individual peptide side-chains" 1994 J. Im	munol. 152:163-175				
10	A32	Fu et al., "An endoplasmic reticulum-targe	eting signal sequence enhances the in	nmunogenicity of an			
. 1004		immunorecessive simian virus 40 large T	antigen cytotoxic T-lymphocyte epitop	e" 1998 J. Virol 72:1469-81			
1	A33	Schodel et al., "hepatitis B virus core and	de antigen: immune recognition and us	se as a vaccine carrier molety"			
	7.00	1996 Intervirology 39:104-10					
	A34	Wolff and Trubetskoy, "The cambrian period of nonviral gene delivery" 1998 nature Biotechnology					
		423					
	A35	Taylor et al., *Biological and immunogenic properties of a canarypox-rables recombinant, ALVAC-RG (vCP65)					
	733	in non-avian species" 1995 Vaccine 13:539-549					
	A36	Stannard et al., "Evidence for incomplete	replication of a penguin poxvirus in ce	ils of mammalian origin"			
		J. Gen. Virol. 1998 79:1637-46					
	A37	Mackett et al., "Vaccinia virus: a selectab	le eukaryotic cloning and expression v	ector 1982 PNAS 79: 7415-			
	7107	7419					
	A38	Upton et al, "Identification and nucleotide	sequence of the thymldine kinase gen	e of shope fibroma virus" J.			
	730	Virology 60:920, 1986					
	A39	Boyle et al, "Fowlpox virus thymidine kinase: nucleotide sequence and relationships to other thymidine					
	A33	kinases" Virology 156:355-365, 1987					
	A40	Lewis et al, "Human immunodeficiency virus infection of cells arrested in the cell cycle" 1992 EMBO J					
	A-10	11:3053-3058					
/4 ~	A41	Lewis and Emerman "Passage through mitosis is required for oncoretroviruses but not for the human					
V	A41	immunodeficiency virus" 1994 J. Virol. 68:	510-516				
·	A42	Mackett et al, "General method for production and selection of infectious vaccinia virus recombinants					
	7.42	expressing foreign genes" 1984, J. Virol. 4	9:857-864				
EXAMINER	$\sqrt{M}$	aname Din	DATE CONSIDERED	10/7/07			
<ul> <li>EXAN cltation</li> <li>application</li> </ul>	on If no	nitial if citation considered, whether or not in conformance and not considered.	not citation is in conformance with h Include any copy of this form v	MPEP 609; Draw line through with next communication to			

MAY 1 3 2004 8

U.S. DEPARTMENT OF COMMERCE PATENT: AND TRADEMARK OFFICE

ATTY. DOCKET NO. 078883/0120 Sheet 4
SERIAL NO.

.09/533,798

## INFORMATION DISCLOSURE CITATION

APPLICANT

Miles William CARROLL et al.

**FILING DATE** 

**GROUP ART UNIT** 

(Use several sheets if necessary)

3/24/2000

1542 644

	<del> </del>	OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)			
<b>N</b>	A43	Hruby et al, "Fine structute analysis and nucleotide sequence of the vaccinia virus thymidine kinase gene"			
MD	'''	PNAS 80:3411-3415, 1983			
1	A44	Lytvyn et al, "Comparison of the thymldine dinase genes from three entompoxiruses" J. Gen Virol			
	^~	73:3235-3240 1992			
	A45	Smith et al., "Vaccinia virus immune evasion" 1997, immunoi Rev. 159:137-154			
	A46	Jenkins et al, "Formation of lentivirus particles by mammalian cells infected with recombinant fowlpox virus"			
	A40	AIDS Research and Human Retroviruses 7:991-998, 1991			
	A47	Taylor et al, "Recombinant fowlpox virus inducing protective immunity in non-avian species" Vaccine 6:497-			
		503, 1988			
	A48	Sphener et al. and Boursnell et al. "Insertion of the fusion gene from newcastle disease virus into a non-			
	A40	essential region in the terminal repeats of fowlpox virus and demonstration of protective immunity induced by			
		The recombinant" 1990 J. Gen. Virol. 71:621-628			
	A49	Nakano et al, "Molecular genetics of vaccinia virus: demonstration of marker rescue" Proc. Natl. Acad. Sci.			
	A49	USA 79, 1593-1596, 1982			
	A50	Chakrabarti et al., "Vaccinia virus expression vector: coexpression of β-galactosidase provides visual			
	A30	screening of Recombinant virus plaques" Mol. Cell. Biol. 3403-3409, 1985			
	A51	Wigler et al, "Transformation of mammalian cells with genes from procaryotes and eucaryotes" Cell 777-785,			
	A31	1979			
	A52	Graessmann et al, "Microinjection of tissue culture cells" Meth. Enzymology 101, 482-492, 1983			
	A53	Franke et al, "Neomycin resistance as a dominant selectable marker for selection and isolation of vaccinia			
V	A33	virus recombinants" Mol Cell biol 1918-1924, 1985			
ma	A54	Altenburger, W., Suter, C.P. and Altenburger J., "Partial deletion of the human host range gene in the			
<b>1</b> - <b>C</b>	A34	attenuated vaccinia virus MVA* 1989 Arch. Virol. 105, 15-27			
CV 4 4 4 11 1 C -					

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include any copy of this form with next communication to applicant.

Form DTO 4	440	HE DEDARTHET OF COLUMN	Time a series	Sheet 5 of 6		
		U.S. DEPARTMENT OF COMMERCE	ATTY. DOCKET NO.	SERIAL NO.		
(MODIFIED) PATENT AND TRADEMARK OFFICE		FAIENT MAD ITADEWARK OFFICE	078883/0120 APPLICANT	09/533,798 (0) 7		
INFORMATION DISCLOSURE CITATION			Miles William CARROLL et al.			
			FILING DATE	GROUP ART UNIT		
	(Use s	several sheets if necessary)	3/24/2000	1643 1640		
		OTHER DOCUMENTS (Including A	uthor, Title, Date, Pertinent Pages,	L		
<b>A</b> \ \ \ \	A55	Neumann et al., "Gene transfer into mouse lyoma cell by electroporation in high electric fields" EMBO J. 1.				
	733	841-845, 1982				
^^	A56	Schaffner, *Direct transfer of cloned gene	es form bacteria to mammalian cells" P	roc. Natt. Acad. Sci. USA		
1000	A30	77,2163-2167, 1980				
	A53-	Nestle FQ at al, "Vaccinatio of melanoma	- patients with peptide- or tumor lysate	pulsed dendritic cells" Nat.		
	A57	Med. 1998 Mar;4(3):328-32				
	A58	Altachul et al, "Issues in searching mole	cular coquence database" 1994 Nature	Genetics 6:119-129.		
	-	Carroll & Moss, "Host range and cytopat				
	A59	propagation and generation of recombina				
		1997 Virology 238:198-211				
<b>.</b>	400	Kim CJ et al., "Dendritic cell infected with poxviruses encoding Mart-1/melan a sensitive T Lymphocytes in				
	A60	vitro" J. Immunother, 1997 Jul;20(4):276-86				
	A61	Schnelder et al., enhanced immunogenicity for CD8+ T cell induction and complete protective efficacy of				
		malaria DNA vaccination by boosting with modified vaccinia virus Ankara" 1998 Nat Med 4:397-402				
W	A62	Chakrabarti et al, "Compact, synthetic, vaccinia virus early/late promoter for protein expression" 1997				
NG)	7.02	Biotechniques 23:1094-1097		·		
AA()	A63	Wyatt et al., "Development of replication-deficient recombinant vaccinia virus vaccine effective against				
1000		parainfluenza virus 3 Infection in an animal model" 1996 Vaccine 14:1451-1458				
	A64	Sutter et al, "A recombinant vector derived from the host range-restricted and highly attenuated MVA strain				
NOV)	,	Of vaccinia virus stimulates protective imn	nunity in mice to influenza virus", 1994	Vaccine 12:1032-1040		
10 N	A65	Carroll and Moss *E. coli β-glucuronidase (GUS) as a marker for recombinant vaccinia viruses* 1995				
1000		Biotechniques 19:352-355				
100	A66	Hirsch et al., "Patterns of viral replication correlate with outcome in similan immunodeficiency virus (SIV)-				
1000		infected macaques: effect of prior immunization with a trivalent SIV vaccine in modified vaccinia virus				
		Ankara* 1996 J. Virol 70:3741-3752				
EXAMINER	M	inima M	DATE CONSIDERED	6/02		
EXAN     citatic     applic	on it no	nitial if citation considered, whether or n t in conformance and not considered.	ot citation is in conformance with findude any copy of this form w	MPEP 609; Draw line through with next communication to		

Form PTO-1449		U.S. DEPARTMENT OF COMMERCE	ATTY. DOCKET NO.	Sheet 6 of 6			
(MODIFIED)		PATENT AND TRADEMARK OFFICE	078883/0120	SERIAL NO.			
, ALENI AND INDUMAN OFFICE		·	APPLICANT	09/539,79B (V)			
INFORMATION DISCLOSURE CITATION			Miles William CARROLL et al.				
Ì			FILING DATE	GROUP ART UNIT			
	(Use s	everal sheets if necessary)	3/24/2000	1643-1644			
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)							
In	A67	Sutter and Moss, "Nonreplicating vaccinia vector efficiently expresses recombinant genes" 1992 Proc. Natl.					
		Acad Sci USA 89:10847-10851					
mo	A68	Bronte et al., "Antigen expression by dendritic cells correlates with the therapeutic effectiveness of a model					
1, 0		recombinant poxvirus tumor vaccine" 1997, Proc. Natl Acad Sci USA 94(7):3183-3188					
, ~O	A69	Wyatt et al., "Replication-deficient vaccin		NA polymerase for transient			
		gene expression in mammalian cells" 199					
<del></del>	A70	Carroll et al., "Highly attenuated modified	I vaccinia virus Ankara (MVA) as an ef	fective recombinant vector, a			
	7/0	Murine tumor model* 1997 Vaccine, 15:387-394					
120	Sutter et al, "Non-replication vaccinia vector efficiently expresses bacteriophage T7 RI						
V • •		1995 FEBS lett. 371:9-12					
	A72	Overwijk-et-al, "gp100/pmel 17 is a murine tumor rejectic antigen induction of "Self" - reactive, tumoricidal T					
		cells using high-affinity, altered peptide lig	gand", (1998) J. Exp. Med. 188: 277-28	6			
11/10	A73	Hole N, and Stern PL, "Isolation and cha	racterization of 5T4, a tumor-associate	d antigen", (1990) Int. J.			
104		Cancer 45(1): 179-184					
EXAMINER	M	ani n	DATE CONSIDERED 7	10/57			
citati	EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include any copy of this form with next communication to applicant.						

Form PTC	-1449	U.S. DEPARTME	NT OF COMMERCE	ATTY. DOCKET NO	),	SERIAL NO	)		
(MODIFIED) PARTY AND TRADEMARK OFFICE			078883/0	0120	<del>09</del> /533,798 (0/7				
MAY 1 3 2004 (1)		APPLICANT .		•		<del></del>			
, A	FORMAT	ION DECLOSURE	CITATION	Miles Willia	m CARROLL at	nd Kevin Ala	n MYERS	3	
	P. RADEMARK CV			FILING DATE	•	GROUP AR		^	
Date Subr	mitted to PT	O: September 6, 200	00	March 24,	March 24, 2000		1643 [644]		
	,		· U.S. PATE	NT DOCUMENTS					
EXAMIN ER INITIAL	REF	DOCUMENT NUMBER	DATE	· NAME	CLASS	SUB- CLASS			
			:						
	:	•	FOREIGN PA	TENT DOCUMENTS	<u> </u>			٠.	
	REF	DOCUMENT	DATE	COUNTRY	CLASS	SUB-	TRANS	LATION	
	111	NUMBER	DATE		CLASS	CLASS	YES	NO	
	Al-	EP-A-0198328	04/02/80	Europe					
	A2 ··	EP-A-0110385	11/29/83	Europe					
		OTHER DOCUME	NT(S) (Including	Author, Title, Date, I	Pertinent Page	s, Etc.)		L	
				:				• :	
							:		
		·	-	•				٠.	
	-				,			`	
			**						
	. ,				,		•		
			<del></del>	•		<del></del>	_		
		· · · · · · · · · · · · · · · · · · ·	<del></del>				· ·		
			<u> </u>						
EXAMINE (	ER 1)1	^ -	<u> </u>	DATE CONSIDE	RED 1	1/2			
+ E	XAMINER:	Initial if citation	considered, what	her or not citation i	is in conforma	DCO With M	DED son	). D====	
iln	ne through	citation if not in	conformance an	d not considered.	include any co	opy of this	form wi	th next	